UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/459,237	12/10/1999	GERALD T. CARACCIOLO	533/050	9883

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EXAMINER
NG, CHRISTINE Y

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _14 November 2005_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-14_ is/are pending in the application.

    4a) Of the above claim(s) _10-14_ is/are withdrawn from consideration.

5)☒ Claim(s) _7 and 9_ is/are allowed.

6)☒ Claim(s) _1-5_ is/are rejected.

7)☒ Claim(s) _6 and 8_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _14 November 2005_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 1 and 8 are objected to because of the following informalities:

In claim 1 line 10, --said-- should be inserted before "phase increment register".

In claim 8 line 1, --stream-- should be inserted before "identifiers".

Appropriate correction is required.

Response to Arguments

2.   Applicant's arguments, see page 9, line 23 to page 12, line 20, filed November

14, 2005, with respect to the rejection(s) of claim(s) 1-5 under 35 USC § 103 have been

fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of

different interpretation of the previously applied reference.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,710,593 to Reynolds.

Referring to claim 1, Reynolds discloses in a rate generator for generating a

plurality of frequencies comprising:

[Figure 2] An oscillator (DDS 20) comprising:

A phase accumulator (36) for storing an accumulated phase value. Refer to Column 2, lines 41-43.

A phase increment register (38) for storing a phase increment value. Refer to Column 2, lines 43-45.

An adder (40), coupled to said phase accumulator and said phase increment register, for summing said phase increment value and the accumulated phase value to provide a sum to said phase accumulator. Refer to Column 2, lines 45-49.

Said adder for generating a pulse (address) at a frequency each time the sum reaches a pre-determined value (combination of outputs of phase accumulator 36 and phase increment register 38). After combining the output of the phase accumulator 36 with the phase increment from the phase increment register 38 (pre-determined value), the adder 40 produces an address (pulse) at the next clock cycle. Refer to Column 2, lines 45-49.

[Figure 1] A controller (address generator 18), coupled to said oscillator (DDS 20), for time sharing said phase accumulator, phase increment register and said adder to produce a plurality of frequencies (sine and cosine subcarrier signals). The DDS 20 produces a digital representation of the sine and cosine subcarrier frequencies, partially under the control of the Color Frame Reset pulse from the address generator 18. Refer to Column 2, lines 19-28 and lines 39-53.

Although Reynolds does not specifically disclose that *the controller operates said oscillator as a plurality of oscillators* to produce a plurality of frequencies, the controller (address generator 18) works with the oscillator (DDS 20) to produce a plurality of

frequencies (sine and cosine subcarrier signals) once per color frame. The address

generator 18 produces a Color Frame Reset pulse once per color frame; the Color

Frame Reset pulse is then input to the DDS 20 to produce sine and cosine subcarrier

signals. Refer to Column 2, lines 19-28 and lines 54-65. Therefore, the controller

(address generator 18) operates the oscillator (DDS 20) as a plurality of oscillators

since the oscillator is able to produce a plurality of different sine and cosine frequencies.

The controller (address generator 18) also operates the oscillator (DDS 20) as a

plurality of oscillators since the oscillator produces a plurality of different frequencies

one per color frame; there is a plurality of color frames.

Referring to claim 2, Reynolds does not specifically disclose that the rate

generator further comprises a plurality of oscillators and controllers.

However, Reynolds discloses in Figure 1 a digital video test signal generator 10.

By including more than one oscillator and controller within the test signal generator,

more test signals can be produced. Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to include that the rate

generator further comprises a plurality of oscillators and controllers; the motivation

being to generate more test signals.

Referring to claim 3, Reynolds discloses that:

[Figure 2] Said phase accumulator (36) is an accumulated phase value storage

for storing a plurality of accumulated phase values. Phase accumulator 36 stores a

plurality of phase values from sine/cosine lookup tables 32,34. Refer to Column 2, lines

39-43.

[Figure 2] Said phase increment register (38) is a phase increment value storage for storing a plurality of phase increment values. Refer to Column 2, lines 43-45.

[Figure 1] Said controller (address generator 18) is a memory address generator for addressing said phase accumulator value storage and said phase increment value storage to timely apply said values to said adder. The address generator 18 produces a Color Frame Reset pulse, which partially controls the DDS 20 to produce a digital representation of the sine and cosine subcarrier frequencies. Refer to Column 2, lines 19-28 and lines 52-53.

Referring to claim 4, Reynolds does not specifically disclose that the accumulated phase value storage stores 64 accumulated phase values and said phase increment value storage stores 64 phase increment values. However, the invention of Reynolds can include any number of accumulator phase values or phase increment values, since the particular number of accumulator phase values and phase increment values, 64, does not offer any unexpected results.

Referring to claim 5, Reynolds does not specifically disclose that said plurality of oscillators is 64. However, the invention of Reynolds can include any number of oscillators, since the particular number of oscillator, 64, does not offer any unexpected results.

Allowable Subject Matter

5.   Claims 7 and 9 are allowed.

6.   Claim 6 is objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Christine Ng whose telephone number is (571) 272-

3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng ω
January 24, 2006

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER